

Chapter 2: What you need to know

System performance

Factors affecting system performance

Factors affecting system performance are application dependent. They are a combination of the system limits and the nature of the applications. It is recommended that the Meridian IVR applications be designed so that the response time is less than 1 second. Thus, the system should respond with voice within 1 second after a DTMF digit or string of digits are entered.

Host access

Host access is a factor which is not directly related to Meridian IVR but on the performance of the remote host and the quality of communications between the two machines. For instance, VT100 access is CPU intensive, and no recommendations can be made for this release of Meridian IVR. However, as a general rule, if the duration of host access time is going to be longer than a second, the application should play voice while the access is occurring.

ACCESS link capacity

The ACCESS link is a 9600 baud link transmitting approximately 1000 characters per second (pre-MM10). Most of the messages on the link are generated during DTMF collections and voice prompt playing.

Application digit density

Each digit generates an access message of 24 bytes. It is recommended that applications be designed so that the digit density on each Access link is no more than 20 digits per second (This applies when using ACCESS Link with 9600 baud rate only). The following table illustrates different digit density capacity for different ACCESS link speed.

Table 2-1
Digit Density rate

Link Speed	Digit-rate/Second
4800	15.0
9600	20.0
19200	25.0
38400	32.0

Fax conversion processes

Several Fax Response processes, such as conversion of PostScript files and ASCII files to tagged information format (TIFF) data files, are very CPU intensive.

Number of voice prompts played

Each request to play a voice prompt generates a play prompt and a finished playing message. This is not normally limiting because human voice prompts last far longer than the time it takes to transmit the request messages.

The Meridian Mail system

Meridian Mail systems are normally self-engineering in the sense that they are multiple CPU systems and grow as the system grows. However, if Meridian Mail is attached to a very active Meridian IVR system and is shared with call answering, the Meridian IVR system should be dedicated to its own node to minimize bus traffic.